(b) whether there is any deterioration in the quality of ink even when stored in close containers after a certain period and if so, when; and

(c) whether it is a fact that the deterioration of the quality and its commencement vary with the nature of the receptacle and the quantity contained in it and if so, what they are when ink is stored in bottles, jars, and barrels, respectively?

A.—(a) The stocks on hand of the various kinds of inks on 31st March 1928 were—

	Gals.
Blue black ink in bulk	1,273
Blue black ink bottled	287
Stamping ink	10

Three hundred and ninety-one gallons have been in stock since 1923–24; 202 gallons since 1926 and 680 gallons since 1927. The inks left over from the year 1926–27 are mostly record inks prepared with a view to supplying the requirements of the Superintendent of Stationery.

(b) Ink even when stored in closed containers deteriorates after a lapse of three years.

(c) Deterioration in the quality of an ink and the commencement of deterioration varies with the nature of the receptacle. For instance, ink stored in bulk will deteriorate sooner than ink kept in small receptacles such as jars, bottles, etc., because the staves are affected by climatic conditions whereas glass and stoneware are not so affected. In the case of bulk storage, there is not only deterioration to contend with but also wastage due to evaporation and leakage in the barrels.

Mr. B. Ramachandra Reddi :—"May I know whether the ink that is necessary for Government purposes is taken from this Ink Factory?"

The hon. Mr. M. R. Seturatnam Ayyar :—"Some kind of ink is taken."

Working of the Government Minor Industries Laboratory.

*812 Q.—Mr. A. Ranganatha Mudaliyar : Will the hon. the Minister for Development be pleased to state—

(a) when the Government Minor Industries Laboratory was started and with what object;

(b) the officer or officers appointed to carry out the several objects and the duration of their employment;

(c) the work so far turned out by them and that remaining yet to be done;

(d) the measures taken to carry out expeditiously the work yet to be done; and

(e) whether in addition to the industries originally contemplated at the time of the establishment of the institute, the investigation of any other minor industries by the institute is under consideration and if so, what the programme is and the period expected to be taken for the completion of the programme or for showing appreciable results?

29th November 1928]

A.—(*a*) The Industrial Laboratory was started at Coonoor on 18th September 1919 with the object of investigating certain minor industries and industrial problems of the Presidency.

(*b*) Sir Frederick Nicholson was in charge of the laboratory till April 1922 when Mr. S. Venkataraman, who had previously been appointed Chemical Assistant to Sir F. Nicholson, was placed in direct charge, and from October 1922 the laboratory was transferred to Madras with the name of the Government Industrial Institute. Mr. Venkataraman continues to be in charge.

(*c*) Fluid inks of a quality equal to that of imported inks have been manufactured at this institute. Ink powders and ink tablets have also been produced. The preliminary experiments on the manufacture of printers' inks undertaken at the institute have yielded promising results and consequently arrangements are in progress with a view to the manufacture of one or two varieties of printers' inks on a semi-commercial scale.

(*d*) The work of the institute is carried out as expeditiously as possible. An indent has been placed with the Stores Department, London, for the supply of certain machinery required in connexion with the manufacture of printers' inks and when this is received the work on the manufacture of printers' inks is expected to develop more rapidly.

(*e*) A programme of work to be undertaken at the institute during the next few years is under consideration. The industries that have been suggested for study are adhesives, lamp black, boot polishes, and creams, lacquers and sealing wax. It is not possible to say how long it will take to complete the programme of experimental work or obtain definite results.

Finished products in the Government Industrial Institute, Madura.

813 *Q.*—Mr A. RANGANATHA MUDALIYAR: Will the hon. the Minister for Development be pleased to furnish details of—

(*a*) the finished products on hand on 31st December 1927 or any other later date for which information is available, in the Government Industrial Institute, Madura; and

(*b*) the value of the articles out of them, which were on hand in the institute on 30th June 1927 and 31st December 1926, respectively?

A.—(*a*) The value of finished products on hand on 31st March 1928, the latest date for which information is available, was Rs. 4,771-1-1.

(*b*) Out of the above, stock valued at Rs. 1,604-6-3, was over three years old. The Government have no information as to how much of the stock that was on hand on 31st December 1926 and 30th June 1927 was on hand on 31st March 1928.